

# Peninsula Clean Energy

Low Income Building Electrification Programs  
Lessons Learned and Strategies

# Offerings for Middle and Low Income

## Low Income

Free single measure, direct install program including minor home repair

Today



Whole home electrification

Tomorrow



## All Incomes

Rebates to offset incremental costs

Zero percent loans

Today



+Turnkey support

Tomorrow



# Home Upgrade Program

# Customer highlight – Menlo Park customer

- 2 bed 1 bath home with parents, young child, and grandparent
- Program provided
  - Heat pump water heater, emergency replacement
  - 3 window mounted heat pumps to provide heating and cooling for the home
  - Other minor upgrades: LED lightbulbs, new faucets, grab bar

*“Regarding the new water heater pump that was installed over the weekend... Thank you so much. It's working great. Everyone ..was very friendly and super-fast...now we are able to have hot water! Thank you so much. ” - Maribel*



# Customer highlight – Los Banos customer

- 3 bed 2 bath home with parents and two school-aged children
- Program provided
  - Heat pump water heater, emergency replacement
  - 3 ceiling fan/light unit to replace faulty ones
  - Other minor upgrades: exterior door lock replacement, smart thermostat

*“This is a phenomenal program. It helped my family at the perfect time. Our water heater broke, and the program stepped in and helped... The program’s crew and workers were professional, friendly, and quick.” – Mrs. Marquez*



# Home Upgrade Program

Initial Program

# Home Upgrade Overview & Objectives

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## Initial Program Overview

- Goal to serve up to 200 homes with home repairs & electrification over 2 years
- \$2M total budget, contract through November 2023
- Plays a large role in DEAI focus, including PCE's goal of 20% program expenditure on low-income communities

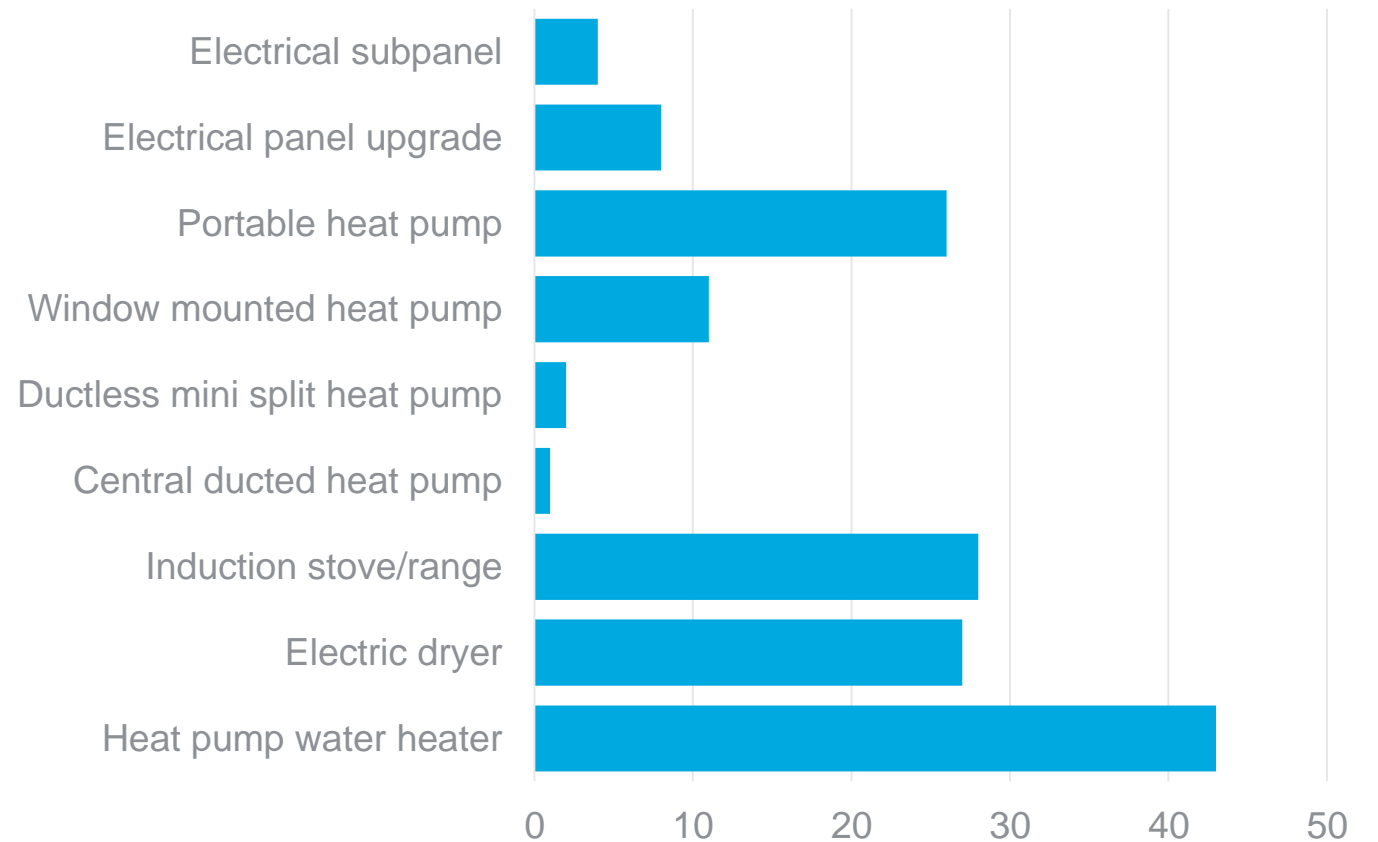
## Objectives

- Provide tangible benefits to low-income customers while driving GHG reductions and net energy savings
- Leverage local/state incentives to maximize impact
- Develop guidelines, strategies, and learnings on home electrification

# Results & Metrics

210 Homes Completed

Electrification Installation in Program



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# Home Upgrade 2023

# Contract Amendment Detail

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- **Continue program in its current form**
  - a) Continue minor home repair & 1 electrification upgrade per home
  - b) Serve current waitlist first, then continue limited and targeted outreach
- **Incorporate 120v heat pump water heaters**
  - a) Install new "plug and play" equipment in 5-10 homes
  - b) Lower installation costs than traditional 240v HPWH
  - c) Assess performance and customer satisfaction

# Contract Amendment Detail Cont.

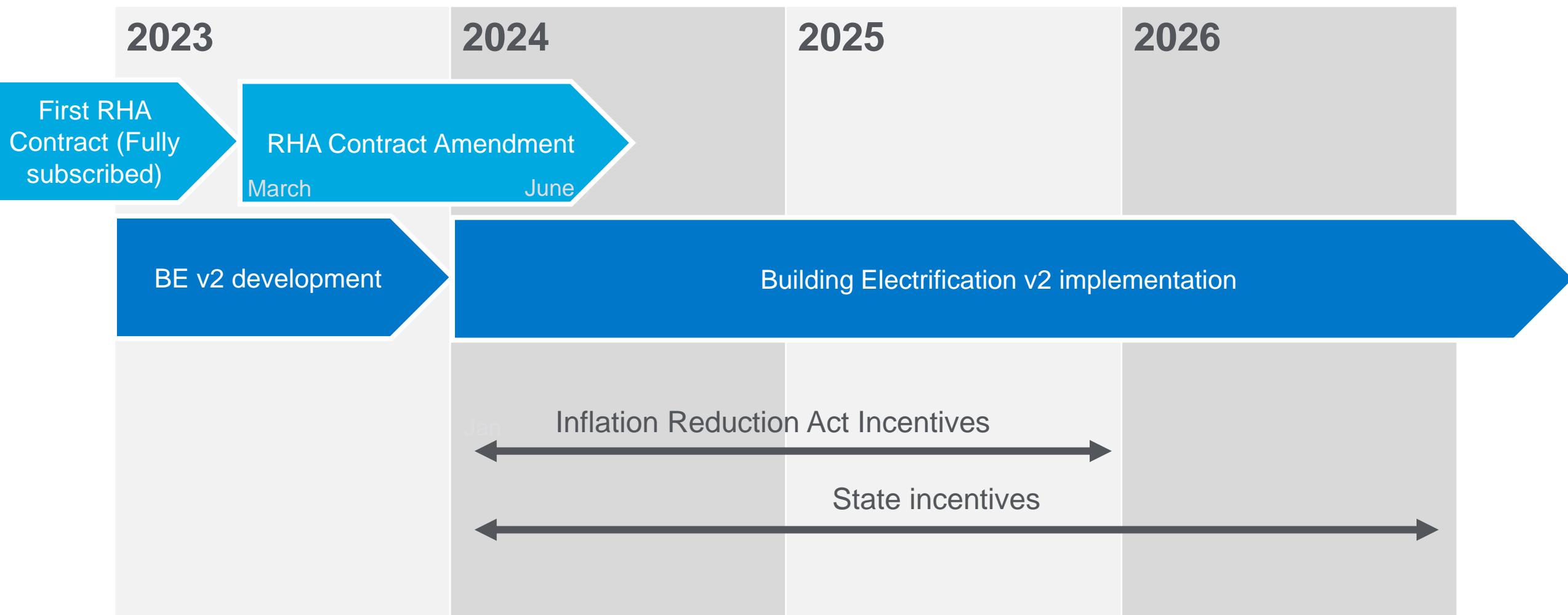
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- **Whole home electrification upgrades**

- a) Fully electrify 4-6 homes
- b) Develop and refine design guidelines for whole home electrification
- c) Develop customer collateral
- d) Document processes and experience
- e) Evaluate results including costs, satisfaction, performance, and bill impacts
- f) Assess implications for policy, permitting, etc.

Learn and inform next phase of program

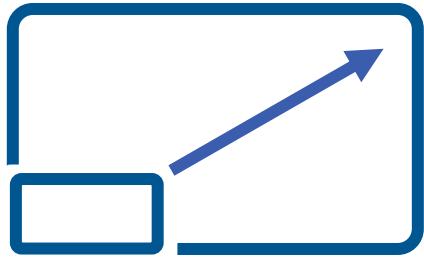
# Contract Amendment as Bridge to BE v2 Program



# Home Upgrade 2024-2026

# Vision for Home Upgrade v2

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Scale to Whole Home



Increase Homes Impacted per Year



One-Stop Shop Services



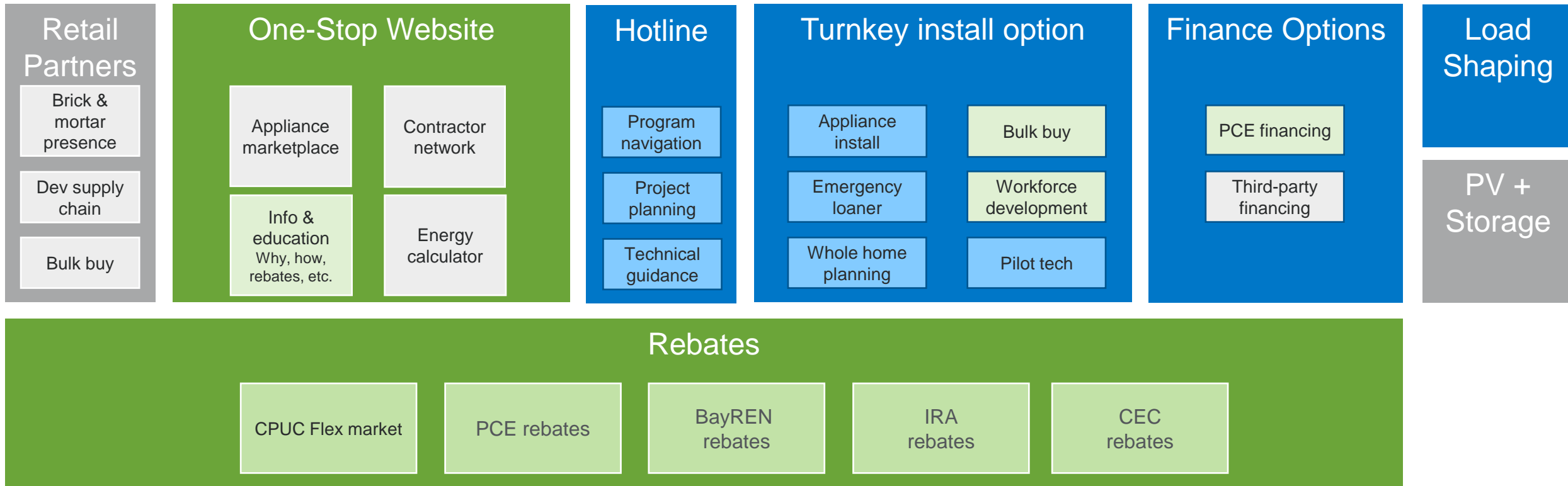
Live Technical Assistance



Turnkey Services

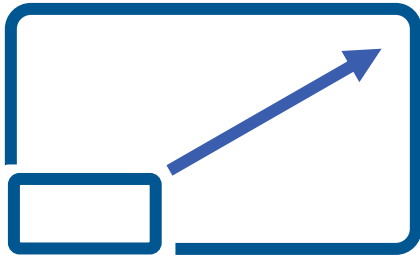
# Our Wider Strategy

- RFP
- Future PCE scope
- PCE Internal



# Whole Homes & More of Them

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Scale to Whole Home

\$30-45k per home covered  
by Peninsula Clean Energy



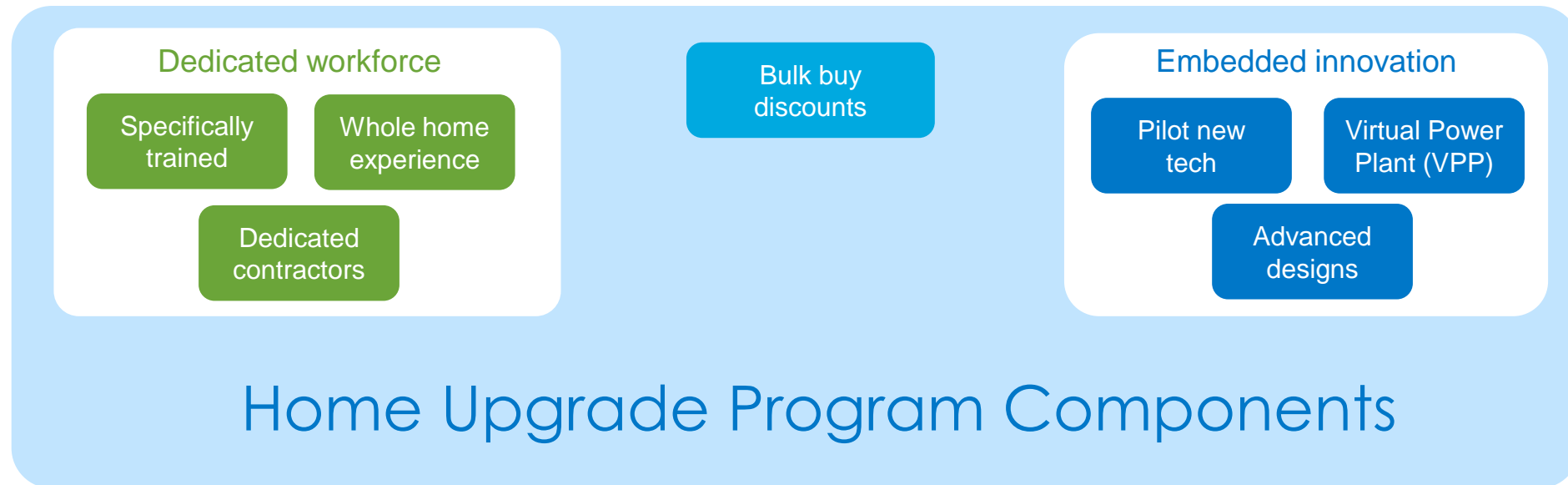
Increase Homes Impacted per Year

**250** homes per year

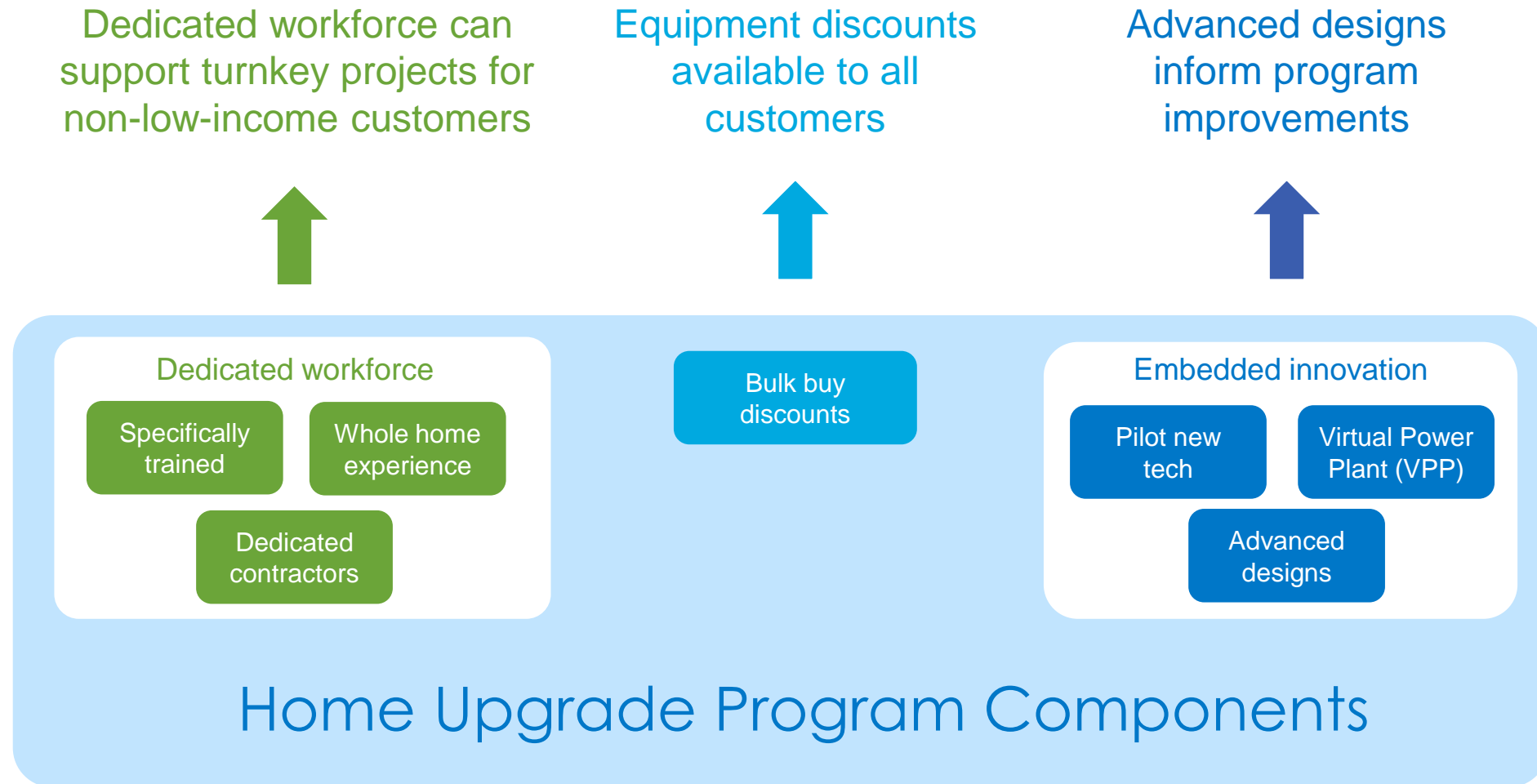
Minimum to enable dedicated workforce

# How Home Upgrade Helps Middle Income

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# How Home Upgrade Helps Middle Income



# How Home Upgrade Helps Middle Income

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# The Essential Workforce

# The Promise of Well-Paying Green Jobs

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≡ Forbes

**Inside Biden's  
Plan To Create  
Over 10 Million  
Well-Paying  
Jobs With His  
Clean Energy  
Initiative**



# Contractors “Losing Ground”



## 3 | Rising incomes in the Bay Area have resulted in many formerly middle-income occupations becoming relatively low-income occupations.

Many formerly middle-income occupations (such as teaching, postal work, and construction) are now considered low-income occupations, earning between 60% and 80% of AMI or even less due to relatively flat wage growth compared with wage growth for higher-income professions. Households



**Manny**

CONSTRUCTION WORKER, SAN MATEO

Manny's household made...

**93%**

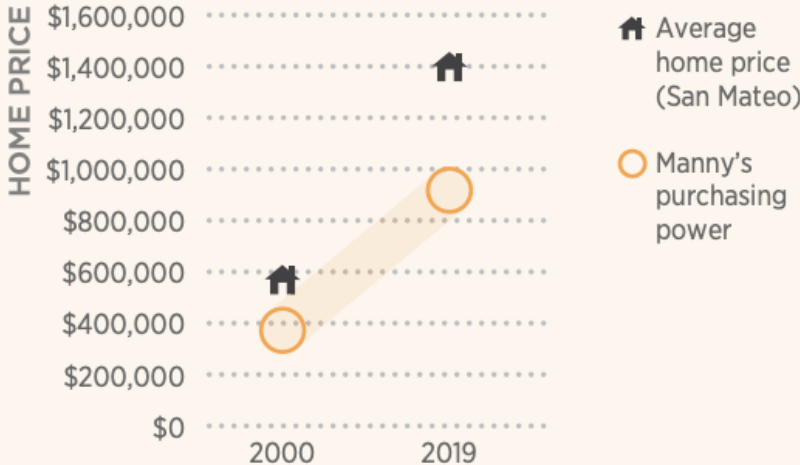
of HH median income in San Mateo in 2000

vs.

**78%**

of HH median income in San Mateo in 2019

### Affordable vs. Average Housing Costs



Single Family Programs are not beholden to  
public works procurement requirements

However, the new program will  
**require prevailing wage**  
for all workers on Home Upgrade projects